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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,836	02/17/2004	Brian G. Balistee	6579-0041-1	9136

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EXAMINER

BLAKE, CAROLYN T

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,836

Applicant(s)

BALISTEE ET AL.

Examiner

Carolyn T. Blake

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-20 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 and 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment and remarks filed on June 13, 2006.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

3. Claim 3 is objected to because of the following informalities: This claim depends from itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. Claims 1, 5, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Capps (5,533,894).

Capps discloses a micro-replicated shaving surface as claimed, including: a substrate (18); a plurality of longitudinal micro-shaving elements (32) projecting outwardly from a surface of the substrate, said micro-shaving elements being arranged in at least one row with each micro-shaving element (32) being spaced away from and approximately parallel to the next successive micro-shaving element (32); and wherein each of said plurality of micro-shaving elements (32) defines a cutting edge (38a) extending longitudinally thereof; and at least one longitudinal micro-shaving element (32) defines a substantially triangular cross section. The blades disclosed by Capps are capable of shaving as claimed.

Regarding claim 5, Capps discloses said longitudinal micro-shaving elements (32) each define a leading surface inclined at a first rake angle and a trailing surface inclined at a second rake angle.

Regarding claim 6, the first and second rake angles appear to be different.

Regarding claim 11, Capps discloses said substrate (63) and said plurality of micro-shaving surfaces are unitary and made from a first material; and each of said plurality of micro-shaving elements is at least partially coated with a second material.

5. Claims 1, 2, 5, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Dischler (6,216,561).

Regarding claim 1, Dischler discloses a micro-replicated shaving surface as claimed, including: a substrate (63); a plurality of longitudinal micro-shaving elements (64) projecting outwardly from a surface of the substrate (63), said micro-shaving elements being arranged in at least one row with each micro-shaving element (64) being spaced away from and approximately parallel to the next successive micro-shaving element (64); and wherein each of said plurality of micro-shaving elements (64) defines a cutting edge (22) extending longitudinally thereof; and at least one longitudinal micro-shaving element (64) defines a substantially triangular cross section. The blades 64 can be considered "substantially triangular" because they form an angled tip.

Regarding claim 2, Dischler discloses said substrate (63) and said plurality of micro-shaving elements (64) are metallic.

Regarding claim 5, Dischler discloses said longitudinal micro-shaving elements each define a leading surface inclined at a first rake angle and a trailing surface inclined at a second rake angle.

Regarding claim 6, the first and second rake angles appear to be different.

Regarding claim 11, Dischler discloses said substrate (63) and said plurality of micro-shaving surfaces are unitary and made from a first material; and each of said plurality of micro-shaving elements is at least partially coated with a second material.

Claim Rejections - 35 USC § 103

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Capps as applied to claim 1 above, and further in view of Davison et al (4,625,725).

Capps discloses a device substantially as claimed, but fails to disclose the material of the substrate or micro-shaving elements. Davison et al disclose a device similar to Capps wherein metal is employed throughout the device because metal is durable. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the Capps device from metal, as taught by Davison et al, because metal is a durable material. In addition, to select a well-known material such as metal for the Capps device would have been obvious to one of ordinary skill in the art since it has been held to be within the general skill of a worker in the art to select a known material on the basis of suitability for the intended use as a matter of design choice. In re Leshin, 125 USPQ 416.

7. Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Capps as applied to claims 1 and 11 above, and further in view of Polk et al (3,940,293).

Capps discloses a shaving surface substantially as claimed, but fails to expressly disclose the micro-shaving elements are formed from amorphous metal or formed from metal and coated with amorphous metal. However, Polk et al disclose it is old and well known in the cutting art to use amorphous metal or a metal coated with amorphous

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metal because compositions with high as-formed hardness, ductility, a high elastic limit, and good corrosion resistance can be selected. Also, amorphous metals are more homogenous than common crystalline materials for the dimensions characteristic of the sharpened edge of a razor blade. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the micro-shaving elements of the Capps device from amorphous metal or metal coated with amorphous metal because amorphous metal has positive hardness, ductility, elasticity, and corrosion characteristics for blades.

8. Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Dischler as applied to claims 1 and 11 above, and further in view of Polk et al.

Dischler discloses a shaving surface substantially as claimed, but fails to expressly disclose the micro-shaving elements are formed from amorphous metal or formed from metal and coated with amorphous metal. However, Polk et al disclose it is old and well known in the razor art to use amorphous metal or a metal coated with amorphous metal because compositions with high as-formed hardness, ductility, a high elastic limit, and good corrosion resistance can be selected. Also, amorphous metals are more homogenous than common crystalline materials for the dimensions characteristic of the sharpened edge of a razor blade. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the micro-shaving elements of the Dischler device from amorphous metal or metal coated with amorphous metal because amorphous metal has positive hardness, ductility, elasticity, and corrosion characteristics for razor blades.

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9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Capps as applied to claim 1 above, and further in view of Orloff (5,983,756).

Capps discloses sharpening the cutting edge, but fails to disclose electro-chemical machining. However, Orloff discloses forming a cutting edge by electro-chemical machining. Electro-chemical machining allows for finer detail in the work piece than traditional grinding operations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the cutting edge of the Capps device using electro-chemical machining, as disclosed by Orloff, in order to create fine detail.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dischler as applied to claim 1 above, and further in view of Orloff.

Dischler discloses sharpening the cutting edge, but fails to disclose electro-chemical machining. However, Orloff discloses forming a cutting edge by electro-chemical machining. Electro-chemical machining allows for finer detail in the work piece than traditional grinding operations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the cutting edge of the Dischler device using electro-chemical machining, as disclosed by Orloff, in order to create fine detail.

Response to Arguments

11. Applicant's arguments filed June 13, 2006 have been fully considered but they are not persuasive.

Applicant argues the Dischler reference does not disclose a blade with a "substantially triangular cross section." This is incorrect. While the blades of Dischler may not be isometric triangles like those of Capps, the Dischler blades can still be considered "substantially triangular" because they form an angled tip. Because the blades are claimed as "substantially triangular" and not "precisely triangular" or the like, Dischler anticipates claim 1.

To the extent this can be argued, the claims are further rejected under the newly cited patent to Capps, as detailed above.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T. Blake whose telephone number is (571) 272-4503. The examiner can normally be reached on Monday to Friday, 8:00 AM to 5:30 PM, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CB

CB

August 16, 2006



BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER